LISTING OF CLAIMS:

Please cancel claims 2 and 7. Claims 1, and 3-6 are currently amended.

The following listing of claims replaces all prior versions of claims in the present application.

1. (Currently amended) A method for labeling multi material data, for a sequence of processing steps using a computer, the steps including acquisition of external data ~~(12)~~, storage of cell data through octree division of the external data, and simulation using the cell data, the method comprising:

an ~~external data acquisition step (S1) of~~(S1) acquiring the external data ~~(12)~~ composed of boundary data and physical property values of an object ~~(1)~~;

an ~~external data input step (A) of~~(A) inputting the external data ~~(12)~~ into a computer;

a ~~cell division step (B) of~~(B) dividing the external data into rectangular solid cells ~~(13)~~ having boundary planes orthogonal to each other;

a ~~cell classification step (C) of~~(C) classifying each of the divided cells into a boundary cell ~~(13a)~~ including the boundary data, and a non-boundary cell ~~(13b)~~ not including the boundary data;

a ~~space classification step (D) of~~(D) classifying the vertices of each cell into multiple spaces partitioned by the boundary data;

a ~~simulation step (S3) of~~(S3) performing a simulation using the physical property values for each cell; and

an ~~output step (S4) of~~(S4) outputting simulation results,

wherein ~~the cell classification~~ step (C) comprises the steps of:

further classifying each of the boundary cells ~~(13a)~~ into a first type cell and a second type cell, the first type cell having a cutting point at which an edge line or vertex is cut by the boundary data, the second type cell having a cutting point that lies on a boundary with another cell of different hierarchy, and the second type cell being larger than the another cell; and

_____assigning a material number to each cell vertex, and

wherein step (D) further comprises:

(D1) assigning all the non-boundary cells space numbers different for respective

spaces partitioned by boundary data; and

(D2) assigning each vertex of the boundary cell the space number of the neighboring

non-boundary cell that is not partitioned by the boundary data.

2. Cancelled.

3. (Currently amended) A method for labeling multi material data according to claim

~~2~~1, wherein ~~the boundary cell setting~~ step (D2) comprises a step of assigning a vertex

matching the boundary data either of the space numbers of two neighboring non-boundary

cells.

4. (Currently amended) A method for labeling multi material data according to claim

1, wherein ~~the cell division~~ step (B) comprises a step of re-dividing the rectangular solid cells

~~(13)~~ by octree division until a number of cutting points enough to reconstruct boundary shape

elements forming the boundary face included in the external data are obtained.

5. (Currently amended) A method for labeling multi material data according to claim

1, wherein ~~the division~~ step (B) comprises a step of dividing voxel data into rectangular solid

cells ~~(13)~~ of the same size.

6. (Currently amended) A method for labeling multi material data according to claim

~~2~~1, wherein ~~the non-boundary cell setting~~ step (D1) comprises a step of scanning all the

rectangular solid cells ~~(13)~~ repeatedly in sequence, or in recursive processing, in the three

directions of X, Y, and Z.

7. Cancelled.